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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,669	02/27/2002	Adrianus Alphonsus Jozef Buijsman	NL010158	8647

7590

03/28/2003

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EXAMINER

SCHILLINGER, LAURA M

ART UNIT

PAPER NUMBER

2813

DATE MAILED: 03/28/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/085,669

Applicant(s)

BUIJSMAN ET AL.

Examiner

Laura M Schillinger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to Amendment B, dated 1/8/03, in Paper No. 8.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-3,5-6 and 8-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamauchi et al ('672).

In reference to claim 1, Yamauchi teaches a module comprising a substrate with a side (Fig.1 (6), a semiconductor device (Fig.1 (2), a shield of an electrically conducting material (Fig.1 (9)), and an antenna (Fig.1 (7)), said shield being present between the antenna and the semiconductor device, characterized in that the shield and the antenna are present substantially at the same side of the substrate as is the semiconductor device (Col.8, lines: 20-25)

In reference to claim 2, Yamauchi teaches characterized in that the shield is connected to the antenna by a support means (Fig.1 (8a)).

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In reference to claim 3, Yamauchi teaches characterized in that the shield and the antenna are metal plates which each comprise a first, second and third portions – the second portion adjoining the first and third and being oriented parallel to the substrate, while at least one of the first and third portions is connected with electrical conduction to electrical conductors at one of the sides of the substrate (Fig.3 (7 and 9)).

In reference to claim 5, Yamauchi teaches in that the support means is a strip having a first and second end which is undetachably connected at its first end to the metal plate of the antenna and is fastened at its second end to the shield (Fig.1 (8a)).

In reference to claim 6, Yamauchi teaches in that the third portion of the antenna is provided with teeth which are connected to the electrical conductors at one of the sides of the substrate (Fig.1 (8)).

In reference to claim 7, Yamauchi teaches the shield is a metal plate which comprises a first, second and third portion the second portion adjoining the first and the third and being oriented parallel to the substrate, while at least one of the first and third portions is connected with electrical conduction to electrical conductors at one of the sides of the substrate and the support means fastened on the shield (Fig.1 (9)).

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In reference to claim 8, Yamauchi teaches in that the support means is the carrier of the antenna and of the shield (Fig. 1 (8a)).

In reference to claim 9, Yamauchi teaches in that the support means comprises a first, second and third portions – the second portion adjoining the first and third and being oriented parallel to the substrate, while at least one of the first and third portions is connected with electrical conduction to electrical conductors at one of the sides of the substrate, while the first and third portions extend up to the substrate (Fig. 1 8 and 8a)).

In reference to claim 10, Yamauchi teaches the device of claim 1 (Col.21, lines: 10-20).

In reference to claim 11, Yamauchi teaches wherein a carrier is present on the module and at least one component emits radiation during operation and the height of the module is greater than the component (See Col.1, lines: 20-30 and Col.21, lines: 60-65).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi et al ('672) as applied to claims above, and further in view of Nagata et al ('173).

In reference to claim 4, Yamauchi fails to teach in that the support means comprises a rubbery, electrically insulating material.

In reference to claim 7, Yamauchi teaches the shield is a metal plate which comprises a first, second and third portion the second portion adjoining the first and the third and being oriented parallel to the substrate, while at least one of the first and third portions is connected with electrical conduction to electrical conductors at one of the sides of the substrate and the support means fastened on the shield (Fig.1 (9)); however fails to teach support means comprises a rubbery, electrically insulating material.

However, Nagata teaches a similar structure wherein antenna (7) is supported by a dielectric in order to improve transmission characteristics through concentrating the electromagnetic field (Col.s 9-10, lines: 10-50).

It would have been obvious to one of ordinary skill in the art to modify Yamauchi's teachings to include an interfacial dielectric in order improve transmission characteristics because interference could develop between Yamauchi's layers 8a and 7 because an electromagnetic signal would be transferred through them.

Response to Arguments

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Applicant's arguments filed 1/8/03 have been fully considered but they are not persuasive.

Applicant argues that Yamaguchi fails to anticipate his claim language because the antenna taught by Yamaguchi is not part of or affixed to the tuner structure. This is not persuasive because connector (52, 150) affixes the external antenna to the tuner structure of Yamaguchi and is interpreted to be a necessary element of the tuner structure.

Applicant argues further that Yamaguchi fails to teach forming a shield between the antenna and a semiconductor device. This argument is also unpersuasive because as depicted in Figs 10a-c shields (151 and 153) are between the semiconductors devices and the connector (150) the antenna attaches to the connector and therefore the shields are positioned in accordance with Applicant's claim language.

Lastly, Applicant argues that the Examiner's § 103 rejection is improper because there is no reasonable expectation of success. The Applicant fails to provide any further reasoning as to why Yamaguchi's teachings would not be modified to include a rubbery support structure for the antenna, further the Examiner cannot perceive any operational difficulties in utilizing a rubbery material to support the antenna. Consequently, such an argument is unpersuasive.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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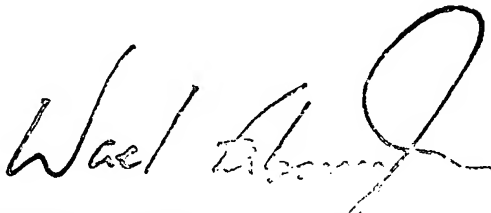
MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura M Schillinger whose telephone number is (703) 308-6425. The examiner can normally be reached on M-T, R-F 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl W Whitehead, Jr. can be reached on (703) 308-4940. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

LMS
March 21, 2003


SUPERVISORY PRIMARY EXAMINER
TECHNOLOGY CENTER 2800